Palestinian National Authority
Palestinian Central Bureau of Statistics

The Palestinian Expenditure and Consumption Survey (PECS) 2011

"User Manual"

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Concepts and Definitions

Household:
It refers to one person or group of persons (with or without a family relationship) who live in the same dwelling unit, who share meals and make joint provisions for food and other essentials of living.

Head of household:
The person who usually lives with the household and is recognized as head of household by its other members. Often he/she is the main decision maker and is responsible for financial support and welfare of the household.

Expenditure:
It refers to the amount of Cash spent on purchase of goods and services for living purposes, and the value of goods and services payments or part of payments received from the employer, and Cash expenditure spent as taxes (non-commercial or non-industrial), gifts, contributions, interests on debts and other non-consumption items.

Consumption:
It refers to the amount of Cash spent on purchase of goods and services for living purposes, and The value of goods and service payments or part of payments received from the employer, and own-produced goods and food, including consumed quantities during the recording period, and Imputed rent for own housing.

Survey period
This survey was executed through the period 15/1/2011 and 14/1/2012, the survey period is one sunny moon for each household, start at the middle of the month and end in the next month middle.

Calendar Month:
Calendar month 30 or 31 days.

Recording period:
It refers to the temporal point during which data on household expenditure and consumption are recorded. It includes one month for record keeping, and twelve months for the last visit interview on durable goods, and 36 months for mains for transportation.

Dependency Ratio: (Indicator)
It refers to the ratio of the elderly (those 65 years and over) plus the young (those under 15 year of age) to the population in the working age (between 15-64 years of age) .

Level of Living:
It refers to food consumption divided by Total Consumption. This indicator is based on the following assumption: the Level of Living is identified by the proportion of consumption on food out of the total consumption (Angles Law of Poverty), as if the food share is increased the other shares of health, education, and housing is decreased. It is distributed to three categories:1. Better-off: "Food Consumption to Total Consumption less than 30%"2. Middle category: "Food Consumption to Total Consumption between 30-44%"3. Worse-off: "Food Consumption to Total Consumption between 45-100%".

Other non-consumption expenditure:
Interests on loans, fees and taxes.

Other non-food consumption, goods and services expenditure:
Financial and legal services, advertisement fees, copy services, translation and printing, writing and drawing equipment, tickets for traveling abroad, jewelry, watches, precious stones, etc.

Income
Cash or in kind revenues for individual or household within a period of time; could be a week or a month or a year.

Main Source of Income:
The more consistent and regular income. The sources of income are:
- Wages and Salaries.
- Net Income for employers or self employed.
- Net property Income.
- Net current Transfers.

Survey Questionnaire

The questionnaire consists of two main parts:

First: Survey's Questionnaire
Part of the questionnaire is to be filled in during the visit at the beginning of the month, while the other part is to be filled in at the end of the month. The questionnaire includes:
Control Sheet: Includes household's identification data, date of visit, data on the fieldwork and data processing team, and summary of household's members by gender.
Household Roster: Includes demographic, social, and economic characteristics of household's members.
Housing Characteristics: Includes data like type of housing unit, number of rooms, value of rent, and connection of housing unit to basic services like water, electricity and sewage. In addition, data in this section includes source of energy used for cooking and heating, distance of housing unit from transportation, education, and health centers, and sources of income generation like ownership of farm land or animals.
Food and Non-Food Items: includes food and non-food items, and household record her expenditure for one month.
Durable Goods Schedule: Includes list of main goods like washing machine, refrigerator, TV.
Assistances and Poverty: Includes data about cash and in kind assistances (assistance value, assistance source), also collecting data about household situation, and the procedures to cover expenses.
Monthly and Annual Income: Data pertinent to household's income from different sources is collected at the end of the registration period.

Second: List of Goods
The classification of the list of goods is based on the recommendation of the United Nations for the SNA under the name Classification of Personal Consumption by purpose. The list includes 55 groups of expenditure and consumption where each is given a sequence number based on its importance to the household starting with food goods, clothing groups, housing, medical treatment, transportation and communication, and lastly durable goods. Each group consists of important goods. The total number of goods in all groups amounted to 667 items for goods and services. Groups from 1-21 includes goods pertinent to food, drinks and cigarettes. Group 22 includes goods that are home produced and consumed by the household. The groups 23-45 include all items except food, drinks and cigarettes. The groups 50-55 include durable goods. The data is collected based on different reference periods to represent expenditure during the whole year except for cars where data is collected for the last three years.

Registration Form
The registration form includes instructions and examples on how to record consumption and expenditure items. The form includes columns:
- Monetary: If the good is purchased, or in kind: if the item is self produced.
- Title of the service of the good
- Unit of measurement (kilogram, liter, number)
- Quantity
- Value

The pages of the registration form are colored differently for the weeks of the month. The footer for each page includes remarks that encourage households to participate in the survey. The following are instructions that illustrate the nature of the items that should be recorded:
- Monetary expenditures during purchases
- Purchases based on debts

- Monetary gifts once presented
- Interest at pay
- Self produced food and goods once consumed
- Food and merchandise from commercial project once consumed
- Merchandises once received as a wage or part of a wage from the employer.

Data Set Linkage

There are 7 data files in this CD-ROM, with one key variable in each file to allow the linkage between these files, namely: ID00 variable (household number). The following table describes the files names, content and identification variables.

File Name	Content	Key Variables
Cover	Identification data	ID00: Questionnaire serial no. in sample
Roster	Roster	ID00: Questionnaire serial no. in sample
Maingrps	Monthly household expenditure in Israeli shekel by main groups	ID00: Questionnaire serial no. in sample
Asses	Assistances	ID00: Questionnaire serial no. in sample
Dwelling	Dwelling conditions	ID00: Questionnaire serial no. in sample
Items	Monthly household expenditure by product	ID00: Questionnaire serial no. in sample
Monthly Income	Total Household Monthly Income	ID00: Questionnaire serial no. in sample

Target Population

It consists of all Palestinian households who are usually resident in the Palestinian Territory during 2011.

Sample and Frame

The sampling frame consists of all enumeration areas which were enumerated in 2007, each numeration area consists of buildings and housing units with average of about 120 households in it. These enumeration areas are used as primary sampling units PSUs in the first stage of the sampling selection.

Sample Size:
The calculated sample size for the Expenditure and Consumption survey 2011 is about 4,317 households, 2,834 households in West Bank and 1,483 households in Gaza Strip.
Sample Design:
The sample is a stratified cluster systematic random sample with two stages:
First stage: selection of a systematic random sample of 215 enumeration areas.
Second stage: selection of a systematic random sample of 24 households from each enumeration area selected in the first stage.

Note: in Jerusalem Governorate (J1), 14 enumeration areas were selected. In the second stage, a group of households from each enumeration area were chosen using the 2007 census method of delineation and enumeration to obtain 24 responsive households. This ensures household response is the maximum to comply with the percentage of non-response as set in the sample design.

Enumeration areas were distributed to twelve months and the sample for each quarter covers sample strata (Governorate, locality type)

Sample strata:
The population was divided by:
1- Governorate
2- Type of Locality (urban, rural, refugee camps)

Estimation Procedure

The weight of statistical units (sampling unit) in the sample is defined as the mathematical reciprocal of the probability to select the unit. The sample of the survey is stratified cluster systematic random one with two stages. Thus, a weight is calculated for each stage and the Households Weights is the multiplication of the two weights.

First stage weight:
The sample of enumeration areas is selected and the weight is called enumeration areas weight (the sampling unit is enumeration areas).

The weight for enumeration areas from stratum h by the design of sample is calculated by dividing the # of enumeration areas in stratum h on the sample size of enumeration areas in stratum h by the following equation (1):

1.
$$W_{ih} = \frac{M_h}{n_h}$$

Where

h	The code of enumeration area stratum I by Governorate and locality type
W_{ih}	The weight of enumeration area i in stratum h
M_h	The # of enumeration areas in the stratum h from the population census frame in 2007
n_h	The sample size of enumeration areas in stratum h

Second stage weight:
The sample of households is selected and the weight is called household weight (the sampling unit is household).

Household weight is calculated from stratum *k* by dividing number of households in each stratum with the sample size of households within the stratum *k*, using the following formula.

2.
$$W_{ik} = \frac{M_k}{n_k}$$

Where

k	Household stratum symbol *i* by Governorate and locality type
W_{ik}	Weight of household *i* in the stratum *k*
M_k	Number of households in the stratum *k* after the modification of the size of enumeration areas reflecting the percent change in the strata design from 2007 to 2011 using household's estimates for 2010
n_k	Household sample size in the stratum *k*

The primary weight of households before modification is the multiplication of the weights of the first and second stages.

Then we adjust the weights for households to compensate for the non response of households by calculate the factor of weights adjustment by dividing the sample size of household from stratum h on the # of the respondent households from stratum h,
by the following equation (2) :

$$f_h = \frac{M_h}{N_h}$$

f_h The factor of weights adjustments in stratum h

M_h The sample size of households in stratum h
N_h The # respondent households in stratum h

Then the final weight for the households is a multiplications of the factor of the weights adjustment by the
primary weights for the household by the following equation (4):

4. $$wf_h^{'} = w_h f_h$$

Calculation of Variance

It is very important to calculate standard errors for the main survey estimations, so that the user can identify the accuracy of estimations and the survey reliability. Total errors of the survey can be divided into two kinds: statistical errors, and non-statistical errors. Non-statistical errors are related to the procedures of statistical work at different stages, such as the failure to explain questions in the questionnaire, unwillingness or inability to provide correct responses, bad statistical coverage, etc. These errors depend on the nature of the work, training, supervision, and conducting of all the various related activities.

Reference Date

The temporal point during which data on household expenditure and consumption are recorded. It includes one month for record keeping, and twelve months for the durable goods and Education. Except cars group which is reference period the last 3 years.

Data Collection

Field Operations:
Four teams of female interviewers, three in the West Bank and one in the Gaza Strip carried out data collection. Each team consisted of a supervisor, and 10-20 female interviewers.

All field staff received a training session combining general theoretical and practical components.

Response Rate

The survey sample consisted of 5,171 households, Weights were modified to account for the non-response rate. The response rate was 88%

Total sample size		5,171 Households	
Household completed	4317	Refused to cooperate	347
Traveling households	66	Vacant housing unit	222
Unit does not exist	48	No available information	6
No one at home	135	Other	30

Response and non-response formulas:

Response and non-response rates

Percentage of over-coverage errors = $\dfrac{\text{Total cases of over-coverage}}{\text{Number of cases in original sample}}$ * 100%

= 5%

Non-response rate = $\dfrac{\text{Total cases of non-response}}{\text{Net sample size}}$ * 100%

= 12%

Net sample = Original sample – cases of over-coverage
Response rate = 100% - non-response rate
= 88%

Treatment of non-response cases using adjustment groups:

$$fg = \frac{\sum_{ng} wi - \sum_{o.c} wi}{\sum_{rg} wi}$$

Where

$\sum_{ng} wi$ Total weights in group g

$\sum_{o.cg} wi$ Total weights considered over-coverage

$\sum_{rg} wi$ Total weights responded in the survey

Each unit is given the value *fg to the group that belongs to it, then w'i* is calculated using the following formula:

$$w'gi = wi * fgi$$

Data Quality

The impact of errors on data quality was reduced to a minimum due to the high efficiency and outstanding selection, training, and performance of the fieldworkers.

Procedures adopted during the fieldwork of the survey were considered a necessity to ensure the collection of accurate data, notably:

- Develop schedules to conduct field visits to households during survey fieldwork. The objectives of the visits and the data collected on each visit were predetermined.
- Fieldwork editing rules were applied during the data collection to ensure corrections were implemented before the end of fieldwork activities
- Fieldworkers were instructed to provide details in cases of extreme expenditure or consumption by the household.
- Questions on income were postponed until the final visit at the end of the month
- Validation rules were embedded in the data processing systems, along with procedures to verify data entry and data edit

Derived Variables

Variable Name	Variable Description	Variable Values
Grp1	Bread and Cereals	Includes products: (101-125)
Grp2	Meat and Poultry	Includes products: (201-223)
Grp3	Fish and Sea Products	Includes products: (301-310)
Grp4	Dairy Products and Eggs	Includes products: (401-417), (419-422)
Grp5	Oils and Fats	Includes products: (501-509)
Grp6	Fruits and Nuts	Includes products: (601-628), (701-703), (706), (801-805), (901-913)
Grp7	Vegetables, legumes and tubers	Includes products: (1001-1003), (1006-1025), (1027-1039), (1201-1206), (1301-1325), (1401-1403), (1405)
Grp8	Sugar and confectionery	Includes products: (1501-1518)
Grp9	Non alcoholic beverages	Includes products: (2001-2004), (2006-2010)
Grp10	Salt, spices and other food	Includes products: (1601-1610), (1701-1736)
Grp11	Take away food and meals in restaurant	Includes products: (1801-1811), (1901-1902)
Grp12	Own produced food in Kind	Includes products: (2201-2219), (2225-2229)
Grp13	Clothing and footwear	Includes products: (2317-2319), (2419-2421), (2519-2521), (2604-2605), (2607-2608), (2610-2615), (2617-2619), (2701-2703), (2710-2714), (2830-2834)
Grp14	Housing	Includes products: (2902-2908), (2913), (2920-2922) +rent value
Grp15	Furniture and utensils	Includes products: (3001-3009), (3020), (3130-3135), (3011), (3017-3019), (5001-5020), (5025-5029), (5101-5121), (5123-5133)
Grp16	Household operations	Includes products: (3230-3237), (3250), (3253-3254),(3256), (3240-3245), (3251-3252), (3255), (3257)
Grp17	Medical care	Includes products: (3301-3318), (3320-3325)
Grp18a	Transport	Includes products: (3401 - 3411=1)(3413 - 3416=1)(3418 - 3419=1)(3501 - 3503=1)(3505=1) (3520- 3521=1)(5201 - 5205=1)
Grp18b	Communication	Includes products: (3506 - 3509=1)(3522 - 3527=1)(5317 - 5319=1)
Grp19	Education	Includes products: (3801-3813), (3816), (3818-3820), (3815), (3817)
Grp20	Recreation	Includes products: (3601-3625), (3630-3635), (3701-3703), (5301-5312), (5315-5316), (5320-5324)
Grp21	Personal care	Includes products: (4030-4031), (4033-4034), (4037-4039), (4032), (4035-4036), (4040), (4042-4044), (4041)
Grp22	Tobacco	Includes products: (2101-2107), (2110), (1903)
Grp23	Alcohol beverage	Includes products: (2111-2115)
Grp24	Other non-food consumption expenditure	Includes products: (3911), (4101-4104), (4201-4205), (5401), (5403-5409), (3901-3906), (3910)
Grp25	Other than food	Includes products: (2220-2223), (2230)
Grp26	Imputed rent	Includes products: question " H8 "
Grp27	remittances in cash	Includes products: (4507-4509)
Grp28	taxes in cash	Includes products: (4412), (4415-4416)
Grp29	other cash non-consumption expenditure	Includes products: (4301-4302), (4401-4411), (4413-4414), (4417), (4501-4503), (4506), (4510-4512), (4513), (4504)
Grp30	Social security	Includes products: (5501-5503)
Tot_cons	Monthly consumption in Nis	=sum(grp1:grp26)
Tot_exp	Monthly expenditure in Nis	=sum(grp1:grp30)- (grp12+grp25+grp26)

Data processing

Both data entry and tabulation were performed using the Oracle and SPSS software programs. Data entry was organized in 9 files, corresponding to the main parts of the questionnaire. A data entry template was designed to reflect an exact image of the questionnaire, and included various electronic checks: logical check, range checks, consisting checks and cross-validation. Complete manual inspection of results after data entry was performed, and questionnaires containing field-related errors were sent back to the field for corrections.

Appendix (1):

The Average Exchange Rates During the Survey Period used in recording the value of Expenditure, 2011

Month	Jordanian Dinar (JD)	US Dollar (USD)
January	5.2	3.6
February	5.1	3.6
March	4.9	3.5
April	4.8	3.4
May	4.9	3.5
June	4.8	3.4
July	4.9	3.5
August	5.1	3.6
September	5.2	3.7
October	5.2	3.7
November	5.3	3.8
December	5.4	3.8